DOCUMENT RESUME

ED 239 490 FL 014 170

AUTHOR White, Lydia
TITLE The "Pro-Drop" Parameter in Adult Second Language Acquisition.
PUB DATE Oct 83
NOTE 30p.; Paper presented at the Annual Boston University Conference on Language Development (8th, Boston, MA, October 7-9, 1983).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Adult Students; Comparative Analysis; *Deep Structure; English (Second Language); French; *Grammar; *Interference (Language); *Language Processing; *Second Language Learning; Sentence Structure; Spanish

ABSTRACT

Based on the assumptions that a universal grammar has a number of functional parameters and that in each language, some are not activated, a study was undertaken to investigate two hypotheses. They are (1) that in a grammatical situation where an adult's first language parameter is not activated in the second language, the learner will "lose" the first language parameter, carrying over some of its structures into the second language; and (2) that in losing the first language parameter, all of its aspects will be lost together, not partially. The parameter examined was the "pro-drop" parameter, which includes such properties as the ability to omit subjects, and free inversion of subject and verb in declarative sentences. The subjects were 54 native speakers of Spanish (a pro-drop language) learning English (not a pro-drop language) and a control group of English students who were native speakers of French (like English, not a pro-drop language). Results suggested that having to change a parameter in language learning may cause problems and is a source of interference errors, at least initially. Other possible explanations for the results are discussed. (MSE)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED239490

THE "PRO-DROP" PARAMETER IN ADULT SECOND LANGUAGE ACQUISITION*

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Lydia White

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Lydia White

McGill University

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

- This document has been reproduced as received from the person or organization originating it.
- Minor changes have been made to improve reproduction quality.
- Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

FL014170

Introduction.

In recent generative theory, it has been proposed that principles of Universal Grammar (UG) vary along a number of parameters, and that languages differ as to the settings of these parameters that they adopt, the exact setting being determined on the basis of evidence from the particular language being learned (Chomsky 1981a, 1981b, 1982):

> UG consists of a highly structured and restrictive system of principles with certain open parameters, to be fixed by experience. As these parameters are fixed, a grammar is determined, what we may call a 'core grammar'" (Chomsky 1981b, 38).

This concept of parametric variation is of particular interest where second language (L2) acquisition is concerned, since second language learners will often be in the situation where their first language (L1) has fixed some parameter one way, whilst the target language has some other setting, or the situation may arise where the first language has some parameter activated which

is not operative in L2, or vice versa.

One such parameter is known as "pro-drop" (Chomsky 1981a; Jaeggli 1982; Rizzi 1982). Languages such as Italian and Spanish have a number of properties which are attributed to this parameter, including the ability to omit subjects, free inversion of subject and verb in declarative sentences, and so-called that trace effects, where a complementizer may apparantly be followed by the trace of a moved category. These properties are illustrated in (1), below: <1>

1.a. Anda muy ocupada
*Is very busy

b. Vino Juan
*Came Juan

c. Quien dijiste que vino?
*Who did you say that __ came?

English and French, on the other hand, are not pro-drop languages and do not have these properties. Thus, the English equivalents of (1a), (1b) and (1c) are ungrammatical.

Spanish adults learning English as a second language are in the position of having had the pro-drop parameter activated in their L1 and they are faced with learning a language where it is not in operation. Two questions of interest arise in such circumstances:

i. Will native speakers of Spanish realize immediately, on the basis of the English data, that English is not a pro-drop language, or will they assume, initially at least, that English is like Spanish with respect to this particular parameter? In other words, is the carrying over of a parameter of L1 a potential source of interference errors in L2?

ii. where one principle of UG encompasses a number of related properties, as pro-drop does, will evidence as to the non-occurrence of one of these properties be sufficient to trigger loss in the other areas subsumed by the parameter in question, or will the L2 learner require separate evidence for each aspect of the parameter? For example, once the native speaker of Spanish has worked out that English does not allow subject verb inversion in declarative sentences, will he also know without being specifically taught that the English version of (1c) is ungrammatical? On many accounts of the pro-drop parameter, the possibility of <u>that</u> <u>trace</u> sequences is closely related to the possibilty of subject verb inversion, so that recognition that both are ungrammatical in English might be connected. If this proves to be so, it will have interesting implications for language learning and language teaching, suggesting that the teaching of certain aspects

of a language may have a range of unexpected but far-reaching consequences.

Thus, there are two related hypotheses to be investigated here, the first being the assumption that a situation where some L1 parameter is not activated in L2 will require the learner effectively to "lose" the L1 parameter, leading, at least initially, to the carrying over of L1 structures into L2. The second hypothesis is that in losing the L1 parameter, all aspects of the parameter should be lost together, just as in the reverse situation, where some parameter has to be acquired for L2 which is not present in L1, one might hypothesize that all aspects of the parameter would be learned together.

Ideally, any theory of second language acquisition should be able to account both for the occurrence of "developmental" errors, namely those thought to reflect universal acquisition processes, and for interference errors, those that reflect some influence from the mother tongue. On the whole, theories have concentrated on one or the other; for example, the Contrastive Analysis hypothesis places emphasis on interference errors, whereas the Creative Construction theory (Dulay and Burt 1974; Dulay, Burt and Krashen 1982) downplays the incidence of such errors, instead emphasizing developmental ones. In much L2 research that accepts UG as an explanatory construct, it is

assumed that little or no interference should occur, that UG should be able to interact directly with the L2 data unaffected by the L1, and that to acknowledge an influence by L1 somehow diminishes the role of UG, or of universal acquisition processes. I should like to suggest, on the contrary, that if interference errors do arise in circumstances predictable on the basis of parametric variation in UG, then we may be closer to achieving a theory that can account for both error types, since interference will be predicted to occur only where L1 and L2 parameters differ. Where they do not differ, the learner should be able to acquire the relevant aspects of L2 unaffected by his L1 experience.

In order to investigate these issues, Spanish adults learning English as a second language were tested on various aspects of pro-drop, to see if they would carry over into English any or all of the structures associated with this parameter.

Subjects

The subjects for this study consisted of 73 adults learning English as a second language (ESL) in day intensive courses in the Continuing Education programme at McGill University in Montreal. Of these, 54 were native speakers of

Spanish and they constituted the experimental group, whilst 19 native speakers of French acted as controls, since French, like English, is not a pro-drop language. The subjects were distributed throughout levels 1 to 5 of the Continuing Education ESL programme, level 1 being beginners and Level 5 advanced. They were initially placed on the basis of their scores on the Michigan Placement Test, with adjustments subsequently made by the teachers in the programme. The Spanish subjects were distributed through the levels as follows: 6 subjects in Level 1, 11 in Level 2, 8 in Level 3, 24 in Level 4 and 5 in Level 5. For the French subjects, because there were very few in Levels 1 and 5 (in fact, one subject at each of these levels), the groups were collapsed as follows: 5 subjects in Levels 1 and 2, 8 subjects in Level 3, and 6 subjects in Levels 4 and 5. All but seven of the Spanish group had been in Canada for less than one year, whereas all but two of the French group were native Quebecers.

Method

Testing was carried out by means of a grammaticality judgment task. Subjects were given a list of 31 randomized written sentences in English, which included correct and incorrect structures (see Appendix). The decision as to correctness versus incorrectness of the test sentences was the

experimenter's, but the teachers of the subjects in this experiment confirmed my judgments. There were six ungrammatical sentences with missing subjects, for example:

2. John is greedy. Eats like a pig.

Of these six sentences, two had expletive it missing, whilst the rest required personal pronouns such as he and she. There were five sentences with ungrammatical subject-verb inversion, for example:

3. Slept the baby for three hours

There were two ungrammatical sentences where the subject of an embedded clause had been questioned, with the complementizer that in position:

4. Which movie do you think that will be on television this evening?

In addition, there were three grammatical sentences with that correctly omitted, on the assumption that Spanish subjects might actually insert that in such cases:

5. Who do you believe will be the next president of the USA?

In other words, the ungrammatical sentences correspond to those

outlined in (1a), (1b) and (1c); that is, whilst they are ungrammatical in English, the Spanish equivalents are grammatical. <2>

Subjects were asked to read the sentences in their own time and to indicate for each sentence whether they considered it to be grammatical or ungrammatical. The instructions used the terms correct and incorrect, as it was felt that students would be more familiar with these. Before they began, they were given a brief explanation of the procedure to follow, and an example. Where they chose incorrect, they were asked to try and supply a correction. In addition, subjects were asked to indicate whether they were sure or unsure of their judgments. They were asked to give their first impression of the sentences and not to change their minds. There was no time limit but most of the subjects completed the task in less than 30 minutes.

In addition to the test sentences, students filled out a brief questionnaire giving details as to their age on first learning English, their mother tongue, other languages known to them, length of time spent in Emglish-speaking countries, etc.

Results

The results suggest that Spanish students do carry the pro-drop parameter over into English, at least initially, and that certain aspects of the parameter are harder to "unset" than others.

To take the case of the missing subject pronouns first, the Spanish subjects, unlike the French controls, in many cases failed to notice the incorrectness of sentences where the subject was missing. The results are summarized in Table 1. Note that a response of correct is the wrong answer, since the sentences are in fact ungrammatical. <3>

Table 1

Numbers responding" correct" to sentences with missing subjects.

Sentence no.	Spanish L1 (N=54)	French L1(N=19)
2	20 (37%)	4 (21%)
4	21 (39%)	7 (37%)
8	19 (35%)	1 (5%)
21	26 (48%)	2 (10%)
22	22 (41%)	3 (16%)
30	31 (57%)	4 (21%)

As can be seen from Table 1, the Spanish students are more likely than the French to accept an ungrammatical English sentence with a missing subject. The difference between the

Spanish and French responses is significant at the .01 level (corrected Chi-square) for sentence 21, at the .05 level for sentences 8 and 30, and at the .1 level for sentence 22. The difference in responses to sentences 2 and 4 is not statistically significant. In many cases, the Spanish subjects are responding at chance level, whereas the French are quite accurate at identifying the ungrammaticality of such sentences. The Spanish responses for sentences 4, 21, 22, and 30 are not significantly different from chance (.05 level, binomial one- tailed test), whereas the French responses for all sentences except 4 are significantly more accurate than chance (at the .01 level). The only sentence that caused problems to the French was sentence (4) in the test, repeated below as (6):

6. Seems that Fred is unhappy.

It is arguable that this sentence would be acceptable in informal, spoken English, so that the failure of either group to reject this sentence could stem from that fact.

If one looks at the Spanish results by level, one sees that the beginners are most inclined to accept missing subjects in English and that there is a gradual improvement in ability to recognize the ungrammaticality of such sentences, shown by a decrease in the number of responses of <u>correct</u> to incorrect sentences. These results are presented in Table 2.

Table 2.

Spanish responses by level to sentences with missing subjects: numbers responding "correct".

Level	Sentences					
	2	4	8	21	22	30
1(N=6)	6(100%)	4(67%)	4(67%)	6(100%)	5(83%)	6(100%)
2(N=11)	7(64%)	3(27%)	5(45%)	7(64%)	4(36%)	9(82%)
3(N=8)	3(37%)	4(50%)	2(25%)	4(50%)	2(25%)	5(63%)
4(N=24)	4(17%)	8(33%)	7(29%)	8(33%)	8(33%)	10(42%)
5(N=5)	0	2(40%)	1(20%)	1(20%)	3(60%)	1(20%)

Sentence (4), the sentence starting with seems does not show improvement; this is the sentence that also caused problems to the French subjects and the failure of the higher level Spanish subjects to judge it ungrammatical may be explained in the same way. Sentence (22) also shows no improvement with increasing level; I have no explanation for this result.

The results from the French controls broken down by level are presented in Table 3. They show little improvement, since all levels were more accurate at recognizing the impossibility of missing subjects in English:

Table 3.

French responses by level to sentences with missing subjects: numbers responding "correct".

Level	Sentences					
	2	4	8	21	22	30
1-2(N=5)	1(20%)	2(40%)	1(20%)	1(20%)	2(40%)	3(60%)
3(N=8)	1(12%)	4(50%)	0	1(12%)	0	1(12%)
4-5(N=6)	2(33%)	1(17%)	0	0	1(17%)	0

Turning now to the judgments on declarative sentences with subject verb inversion, the results are given in Table 4. As before, a response of correct is the wrong answer.

Table 4.

Numbers responding "correct" to structures with verb-subject word order.

Sentences.	Spanish L1(N=54)	French L1(N=19)
5	18(33%)	8(42%)
11	18(33%)	7(37%)
13	4(7%)	3(16%)
15	1(2%)	1(5%)
27	18(33%)	4(21%)

There is no significant difference in the responses of the two groups to any of these sentences (corrected Chi-square scores, .05 level). There are a number of points to be made about these results. Sentences (13) and (15) were simple

sentences with verb subject word order and almost without exception these were recognized as ungrammatical by both Spanish and French subjects at all levels. Sentence (11) was problematic for both groups, probably because the presence of the dummy subject there imposed extra problems, since it involves the subjects' knowing properties of dummy there and the verbs it can occur with, irrespective of the word order issue. Sentence (5), with an embedded question in inverted order, was difficult for both groups. Given that embedded questions in English are well-known for causing problems to language learners of various backgrounds, this was an unfortunate choice of structure in which to test the word order issue. On sentence (27), the Spanish performance seems worse than the French, though the difference is not statistically significant. On examining the corrections made by those who did identify this sentence as incorrect, many of the Spanish subjects inserted there or he, effectively treating this as a sentence with a missing subject pronoun. Thus, it could be that failure to identify this as an incorrect sentence stems not from failure to recognize the inverted word order but from failure to recognize a missing subject, which, as we have seen, is a problem for the Spanish subjects. Although one has to exercise caution because of the above-mentioned considerations, it does appear that neither group judged VS to be an acceptable word order in simple English declaratives and that any problems that arose were due to other aspects of the stimulus sentences.

The final pro-drop structure tested here involves questions where the subject of the embedded clause has been extracted. The test included three grammatical sentences with *that* omitted and two ungrammatical sentences with *that* present. These constitute *that trace* violations, which are acceptable in Spanish but not in English. In addition, sentence (24) involved extraction of the object, where retention of *that* is grammatical in English. The results are summarized in Table 5. The ungrammatical sentences (17) and (19) are starred in the Table. Note that the response of *correct* is incorrect for these two sentences but correct for the rest.

Table 5.

Numbers responding "correct" to extracted embedded subjects.

Sentences.	Spanish L1 (N=54)	French L1 (N=19)
10	49 (91%)	17 (90%)
17*	38 (70%)	12 (63%)
18	36 (67%)	14 (74%)
19*	43 (80%)	14 (74%)
28	53 (98%)	16 (84%)
24	47 (87%)	16 (84%)

There is no significant difference in the responses of the two groups to any of these sentences. The Spanish subjects clearly have a problem in recognizing the ungrammaticality of (17) and (19), and this was true at all levels. They appear to assume that

English allows both presence or absence of that in questions involving extraction of subjects from embedded clauses. This is supported by the fact that in only one case was the word that inserted into one of the grammatical sentences. The French at all levels also have problems in recognizing the ungrammatality of these two sentences, a point I shall return to in my discussion. In spite of their difficulties with (17) and (19), both groups give more responses of correct to the correct sentences taken together than to the incorrect sentences. The difference is significant (T test,.05 level). This suggests that they are not totally unaware of the ungrammaticality of extraction of subjects from such clauses.

In addition to seeing whether the subjects as a group had problems in realising that English is not a pro-drop language, it is of interest to ask whether one can show for any individual subject that all aspects of the parameter are lost together, which would indicate that one is indeed dealing with one parameter with a set of related consequences. There are certain problems in asking this question, in that structures that involve extractions of embedded subjects are clearly more complex than those involving omission of subjects or subject verb inversion. The former necessitates the understanding of sentential embeddings, whilst the latter do not. Hence one cannot expect every subject who has correctly realised that English does not

omit subjects and does not allow verb subject order necessarily to realize that the complementizer <u>that</u> must be absent when questioning subjects of embedded clauses, since failure to realize the latter might simply stem from a lack of mastery of embeddings in general. Thus, one must consider the opposite circumstance: do those subjects who clearly recognize the ungrammaticality of (17) and (19) also show evidence that they recognize that missing subjects and subject verb inversion are not possible in English?

Only 16 of the Spanish subjects correctly identified (17) and/or (19) as ungrammatical. Of these, all but one have clearly realized that English does not allow inversion in declaratives. However, of this same group, only 10 seem reasonably clear that English does not allow missing pronouns (that is for the six sentences with subjects missing they judged at least half of them to be unacceptable).

If one looks just at missing subjects and at inversion, both of which are relevant to simple sentences, it is not clear that the the loss of these two aspects of the parameter go hand in hand: there are 18 subjects, many of them at the lower levels, who judge VS to be an unacceptable order in English but who fail to judge missing subjects to be unacceptable.

Discussion.

Before discussing the implications of these results, a word on the use of grammaticality judgment data is necessary. A number of recent papers have argued for the use of intuitional data as a useful source of information about the language learner's current grammar (e.g.Schachter, Tyson and Diffley 1976; Singh, d'Anglejan and Carroll 1982; Gass 1983; Chaudron 1983). However, it might be objected that asking the learner to judge written sentences does not truly test his "acquired" system, since it gives him opportunities to "monitor" (Krashen 1981), that is to make use of knowledge about the L2 consciously "learned" but not yet fully integrated into the interlanguage. This makes the results all the more interesting if, even given time to monitor, the learner nevertheless fails to notice a particular kind of error, suggesting that the structures in question have not even been "learned", let alone "acquired". In addition, in the case of the pro-drop parameter, whilst it is possible that the necessity for subject pronouns in English is explicitly discussed in the language classroom (and, indeed, several of the teachers involved told me that they do discuss this), it seems most unlikely that there is any discussion whatsoever about extraction of embedded subjects. Thus, the occasion to bring any kind of conscious knowledge to bear on these sentences would seem to be lacking. <4>. The fact that

pro-drop has both obvious and subtle manifestations of this kind makes it a particularly interesting phenomenon to study.

It seems clear from the results discussed above that certain aspects of the pro-drop parameter are carried over by native speakers of Spanish learning ESL, suggesting that learners effectively have to lose parameters which have been activated in L1 but which are not relevant for L2, and that they have some difficulty in doing so. This is particularly clear in the case of the judgments concerning missing subjects in English and extractions of embedded subjects. The hypothesis that UG should be able to be interact directly with L2 data, irrespective of L1 experience, would seem to be disconfirmed in these cases, since, if that were so, one would expect subjects to reject the ungrammatical sentences at a level better than chance. Instead, with the sentences with missing subjects, performance by the Spanish students was mostly at chance level, unlike the performance of the French controls, suggesting that interference from the L1 parameter was preventing them from accurately assessing the situation in English. With the subject extractions, the effect is even stronger: performance is not at chance level but, rather, at a level significantly higher than chance they accept the ungrammatical sentences. Thus, the first hypothesis, that having to lose an L1 parameter will cause problems leading to interference errors seems to be supported.

The gradual improvement with level in ability to judge the sentences with missing subjects as ungrammatical suggests that these problems will not necessarily persist. However, there is only partial support for the second hypothesis, that loss of all aspects of the parameter will be related. It is supported by the fact that those people who realise that extraction of subjects cannot take place out of a clause containing an overt complementizer in English also show evidence of having mastered the word order, though this is perhaps trivially true, since almost all subjects realised the impossibility of VS order in simple sentences. However, the fact that ungrammatical word order is more accurately identified than either of the other aspects of the parameter was not predicted by the second hypothesis.

Regarding the possibility of inverted word order, as mentioned above, it is not at all clear that this is carried over into English. For the simple sentences, at least, the rejection of the ungrammatical word order is extremely accurate. However, given problems with some of the test sentences on inversion, as discussed in the results, it is probably premature to draw any conclusions from this. Rather, this aspect of the parameter should be reinvestigated with a more careful choice of stimulus sentences. Nevertheless, it is of interest that some recent proposals suggest that VS word order should <u>not</u> be included as

part of the pro-drop parameter at all (Chao 1981), a position that these results would be consistent with.

Another issue concerns the question of why the French controls had difficulty in recognizing the ungrammaticality of extractions from clauses containing complementizers. In French, in cases of extraction of subjects from embedded clauses, the complementizer que undergoes a rule: que --> qui in such cases (Kayne 1975), resulting in the following:

7. Qui crois-tu qui va venir?

The fact that who and that are often interchangeable in English and the existence of forms like (7) in French could have led the French subjects to accept the ungrammatical English sentences where that has not been deleted. Thus, the choice of French as the mother tongue of the control group may not be ideal for this particular aspect of the parameter.

The results with the sentences with missing subject pronouns are relevant to another proposal concerning such cases. Cancino, Rosansky and Schumann (1974), observing that Spanish speakers often omit it in spontaneous speech, argue that this is in fact a phonological error, not a syntactic one. This position is also adopted by Dulay, Burt and Krashen (1982). However, it is much harder to maintain this claim in the face of failure to

correct written sentences. <5>. Furthermore, in the experiment reported here, the missing pronoun was it in only two of the six cases, yet all missing pronouns caused problems, suggesting that we have a syntactic error here.

One final point remains to be considered, namely whether the assumption by Spanish speakers that English is a pro drop language is not due to interference from L1 but rather constitutes evidence of a developmental stage, common to first language learners and L2 learners, regardless of their L1. In such a case, the dropping of pronouns would be of ambiguous origin, as suggested by Felix (1980), since both the developmental trend and the L1 would lead to pro-drop errors. An equivalent claim would be that pro-drop constitutes the unmarked case, as argued by Hyams (1983) for first language acquisition. A number of people working on markedness in relation to L2 assume that the L2 learner will first adopt the unmarked case, regardless of the actual data available to him in L1 or L2 (e.g. Kellerman 1978; Mazurkewich 1981, 1983; Hyltenstam 1982; Rutherford 1982; Munoz-Liceras 1983). <6>. If that is the case, and if pro-drop is indeed the unmarked case, then the French controls ought also initially to treat English as a pro-drop language, which they failed to do: at a level significantly greater than chance they judge sentences with missing subjects to be unacceptable in English. This suggests that the extension of

the pro-drop parameter into English by native speakers of Spanish is indeed the effect of having had that parameter operative in L1 and not simply due to trying out pro-drop as the unmarked hypothesis for any language being learned.

Conclusion.

Recent interest in universal aspects of L2 acquisition has led to a playing down of the occurrence of interference errors, indeed to a feeling that they are an embarrassment to UG, and there has been a consequent lack of attempts to explain them. It is proposed here that linguistic universals, often used to account for similarities in L2 acquisition by native speakers of many different languages, can also account for differences, if the parameter-setting view is taken into consideration, thus bringing us closer to a theory that can account both for the similarities and the differences that have been observed in the acquisition literature. The results of this study indicate that having to change a parameter of UG may cause problems for language learners and that this is a source of interference errors, at least initially.

FOOTNOTES.

* I should like to thank Mr.David Levy of the McGill Continuing Education Department English as a Second Language Programme for his help in arranging the testing for this study, as well as all the teachers and students who participated. Their interest and cooperation is very much appreciated. I should also like to thank Gary Libben the statistical analyses.

This is a revised version of a paper presented at the Eighth Annual Boston University Conference on Language Development, October 1983.

1. The Spanish sentences are taken from Jaeggli (1982).

2. The remaining sentences in the test included a number of grammatical sentences. In adddition, there were some other ungrammatical ones which concerned a different universal principle, namely subjacency. These will not be reported on here.

3. There were very few incidences of failure to respond, so that the numbers responding incorrect are, in most cases, the inverse or, almost the inverse, of the numbers

responding correct. It was clear from the corrections that some subjects judged sentences to be incorrect which were in fact grammatical or judged sentences to be incorrect for the wrong reasons; they would, for example, change the tense. Such cases were counted as responses of correct, since they failed to indentify the source of the error, so that the corrections made were irrelevant. Note that the sentence numbers in the tables correspond to the numbers as given in the Appendix. In the tables, the percentages have been rounded up or down to the nearest round number, leading to some minor inconsistencies.

4. In any case, it seems clear that an ability to "monitor", in Krashen' sense, is not the only source of metalinguistic abilities to make grammaticality judgments. Native speakers, for example, can make grammaticality judgments without having any conscious knowledge of the rules involved, as can children.

5. See also White (1977) for arguments that omission of pronouns is a syntactic error. Native speakers of Spanish who omitted the pronoun it in an elicited production task were presented with a transcript of all their output and asked to look for errors and correct them. In many cases, they failed to correct the sentences with missing subjects,

again suggesting that the error could not be phonological.

6. But see White (1983) for arguments that this view of markedness in second language acquisition is in many cases too strong.

APPENDIX.

Test sentences:

missing subjects, subject verb inversion and subject extraction.

2. We will be late for school if don't take this bus.
4. Seems that Fred is unhappy.
5. The policemen didn't know when did escape the prisoner.
8. My sister is very tired because came home late last night.
10. Who do you think will win the race?
11. There looked a strange man through the window.
13. Slept the baby for 2 hours.
15. Walked the boy very far.
17. Who did you say that arrived late?
18. Which man did she hope would marry her?
19. Which movie do you think that will be on television this evening?
21. Francis is in trouble because did not do his homework.
22. John is greedy. Eats like a pig.
24. What program did you say that John watched last night?
27. The mailman came. Have arrived three letters.
28. Who do you believe will be the next president of the USA?
30. Is raining very hard today.

REFERENCES.

Cancino, H. , E.Rosansky and J.Schumann. 1975. Testing hypotheses about the copula and negative in three subjects. Working Papers on Bilingualism 3:80-96. Toronto: Ontario Institute for Studies in Education.

Chao, W. 1981. PRO drop languages and nonobligatory control. University of Massachusetts Occasional Papers in Linguistics 7: 46-74.

Chaudron, C. 1983. Research on metalinguistic judgments: a review of theory, methods and results. Language Learning 33: 343-377.

Chomsky, N. 1981a. Lectures on Government and Binding. Dordrecht: Foris.

Chomsky, N. 1981b. Principles and parameters in syntactic theory. In N.Hornstein and D.Lightfoot (eds), Explanation in Linguistics: the Logical Problem of Language Acquisition. London: Longman.

Chomsky, N. 1982. Some Concepts and Consequences of the Theory of Government and Binding. Cambridge, Mass: M.I.T. Press.

Dulay, H. and M.Burt. 1974. Natural sequences in child second language acquisition. Language Learning 24: 37-53.

Dulay, H., M.Burt, and S.Krashen.1982. Language Two. Oxford; Oxford University Press.

Felix, S. 1980. Interference, interlanguage and related issues. In S.Felix (ed), Second Language Development: Trends and Issues. Tubingen: Gunter Narr Verlag.

Gass, S. 1983. The development of L2 intuitions. TESOL Quarterly 17: 273-291.

Hyams, N. 1983. The pro-drop parameter in child grammars. In D. Flickinger (ed), Proceedings of W.C.C.F.L II Stanford Linguistics Association, California.

Hyltenstam, K. 1982. Language typology, language universals, markedness and second language acquisition. Paper presented at the 2nd European-North American Workshop on L2 Acquisition Research. Gohrde, Germany; August 1982.

Jaeggli, O. 1982. Topics in Romance Syntax. Dordrect: Foris.

Kayne, R. 1975. French relative "que". Recherches Linguistiques 3.

Kellerman, E. 1978. Transfer and non-transfer: where are we now? Studies in Second Language Acquisition 2.1: 37-57

Krashen, S. 1981. Second language acquisition and second language learning. Pergamon Press.

Mazurkewich, I. 1981. Second language acquisition of dative structures and linguistic theory. Paper presented at the Sixth Annual Boston University Conference on Language Development, Oct.1981. To appear in Language Learning.

Mazurkewich, I. 1983. Dative questions and markedness. To appear in F.Eckman, L.Bell and D.Nelson (eds), Universals of Second Language Acquisition. Rowley, Mass: Newbury House.

Munoz-Liceras, J. 1983. Markedness, Contrastive Analysis and the Acquisition of Spanish Syntax by English Speakers. Unpublished PhD. dissertation; University of Toronto.

Rizzi, L. 1982a. Negation, Wh-movement and the null subject parameter. In L.Rizzi, 1982b.

Rizzi, L. 1982b. Issues in Ialian Syntax. Dordrecht: Foris.

Rutherford, W. 1982. Markedness in second language acquisition. Language Learning 32: 85-108.

Schachter, J., A.Tyson and F.Diffley. 1976. Learner intuitions of grammaticality. Language Learning 26: 67-76.

Singh, R., A.d'Anglejan and S.Carroll. 1982. Elicitation of inter- English. Language Learning 32:271-289.

White, L. 1977. Error analysis and error correction in adult learners of English as a second language. Working Papers on Bilinqualism 13: 42-58. Ontario Institute for Studies in Education; Toronto.

White, L. 1983. Markedness and parameter settting: some implications for a theory of adult second language acquisition. To appear in F.Eckman, E.Moravcsik and J.Wirth (eds), Proceedings of the 12th Annual University of Wisconsin-Milwaukee Symposium on Markedness. Plenum Press. Also in McGill Journal of Linguistics 1: 1-21.